IN THE CLAIMS:

Please amend the claims as shown below:

Claim 1 (currently amended): An LED array exposure device comprising:

a plurality of light-emitting elements for exposing a photoconductor so as to form an image, the plurality including a light-emitting element for which correction is performed, the light-emitting element, so as to be compensated for variations, driven by a driving current obtained from a standard driving current common to the light-emitting elements through a process of incorporating a light quantity correction coefficient for compensating for variations of a light quantity emitted from the light-emitting element, and a beam spot area correction coefficient for compensating for variations of a beam spot area formed on the photoconductor, the light-emitting element being so controlled as to be driven by the driving current for a length of time in accordance with a gray level of an image pixel to which the light-emitting element corresponds,

wherein an average value is obtained by averaging out beam spot areas of the plurality of light-emitting elements, including the light-emitting element;

a difference is obtained by subtracting a beam spot area of the light-emitting element from the average value of the beam spot areas;

a ratio of the difference is obtained by dividing the difference by the average value of the beam spot areas;

a beam spot area correction coefficient for the light-emitting element is calculated in accordance with the ratio of the difference;

a granularity correction coefficient for reducing granularity is calculated in accordance with the magnitude of a parameter that affects granularity in an image; and

the driving current for the light-emitting element is obtained by multiplying the
standard driving current by the light quantity correction coefficient, the beam spot area
correction coefficient, and the granularity correction coefficient

~~the driving current for the light-emitting element is obtained from the standard~~
~~driving current common to the light-emitting elements by incorporating the light quantity~~
~~correction coefficient, the beam spot area correction coefficient, and further, a correction~~
~~coefficient in accordance with a magnitude of a parameter that affects a granularity of the~~
~~image, and~~

~~wherein the beam spot area correction coefficient is a value that corresponds to a~~
~~magnitude of a difference between an average value obtained by averaging out beam spot~~
~~areas of the plurality of light-emitting elements including the light-emitting element for~~
~~which a correction is performed and the beam spot area of the light-emitting element for~~
~~which a correction is performed.~~

Claim 2 (canceled)

Claim 3 (previously presented): An LED array exposure device as claimed in claim 1,

wherein the plurality of light-emitting elements are shifted along with the light-
emitting element for which a correction is performed so that a moving average is obtained
as the average value of beam spot areas.

Claim 4 (previously presented): An LED array exposure device as claimed in claim 1,

wherein the plurality of light-emitting elements comprise the light-emitting
element for which a correction is performed and light-emitting elements immediately

following thereto.

Claim 5 (previously presented): An LED array exposure device as claimed in claim 1,

wherein the LED array exposure device comprises a plurality of LED array chips, and the plurality of light-emitting elements comprise light-emitting elements within an identical LED array chip which includes the light-emitting element for which a correction is performed.

Claim 6 (original): An LED array exposure device as claimed in claim 1,

wherein the parameter affecting the granularity of the image is a screen angle peculiar to an image pixel corresponding to the light-emitting element.

Claim 7 (original): An LED array exposure device as claimed in claim 1,

wherein the parameter affecting the granularity of the image is a sensitivity of the photoconductor.

Claim 8 (original): An LED array exposure device as claimed in claim 1,

wherein the parameter affecting the granularity of the image is a surface temperature of the photoconductor.

Claim 9 (original): An LED array exposure device as claimed in claim 1,

wherein the parameter affecting the granularity of the image is a developing bias voltage applied to a developing apparatus.

Claim 10 (original): An image forming apparatus comprising the LED array exposure device as set forth in claim 1.

Claim 11 (previously presented): An LED array exposure device comprising:

a plurality of light-emitting elements for exposing a photoconductor so as to form an image, the light-emitting element, so as to be compensated for variations, driven by a driving current obtained from a standard driving current common to the plurality of light-emitting elements through a process of incorporating a light quantity correction coefficient for compensating for variations of a light quantity emitted from the light-emitting element and a beam spot area correction coefficient for compensating for variations of an area of a beam spot formed on the photoconductor, the light-emitting element being so controlled as to be driven by the driving current for a length of time in accordance with a gray level of an image pixel to which the light-emitting element corresponds,

wherein, first, a driving current in a low gray level is obtained through a process of multiplying the standard driving current by a correction coefficient corresponding to a magnitude of a parameter affecting a granularity of the image when the image pixel has a low gray level, the beam spot area correction coefficient for the light-emitting element, and the light quantity correction coefficient for the light-emitting element;

second, a driving current in a high gray level is obtained through a process of multiplying the standard driving current by a correction coefficient corresponding to a magnitude of a parameter affecting a granularity of the image when the image pixel has a high gray level, the beam spot area correction coefficient for the light-emitting element, and the light quantity correction coefficient for the light-emitting element; and

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finally, the driving current for driving the light-emitting element is obtained by using linear interpolation from the driving current in the low gray level to the driving current in the high gray level in accordance with the gray level of the image pixel to which the light-emitting element corresponds.

Claim 12 (original): An LED array exposure device as claimed in claim 11,

wherein the beam spot area correction coefficient is a value that corresponds to a magnitude of a difference between an average value obtained by averaging out beam spot areas of the plurality of light-emitting elements including the light-emitting element for which a correction is performed and the beam spot area of the light-emitting element for which a correction is performed.

Claim 13 (original): An LED array exposure device as claimed in claim 12,

wherein the plurality of light-emitting elements are shifted along with the light-emitting element for which a correction is performed so that a moving average is obtained as the average value of beam spot areas.

Claim 14 (original): An LED array exposure device as claimed in claim 12,

wherein the plurality of light-emitting elements comprise the light-emitting element for which a correction is performed and light-emitting elements immediately following thereto.

Claim 15 (original): An LED array exposure device as claimed in claim 12,

wherein the LED array exposure device comprises a plurality of LED array chips, and the plurality of light-emitting elements comprise light-emitting elements within an identical LED array chip which includes the light-emitting element for which a correction is performed.

Claim 16 (original): An LED array exposure device as claimed in claim 11,

wherein the parameter affecting the granularity of the image is a screen angle peculiar to an image pixel corresponding to the light-emitting element.

Claim 17 (original): An LED array exposure device as claimed in claim 11,

wherein the parameter affecting the granularity of the image is a sensitivity of the photoconductor.

Claim 18 (original): An LED array exposure device as claimed in claim 11,

wherein the parameter affecting the granularity of the image is a surface temperature of the photoconductor.

Claim 19 (original): An LED array exposure device as claimed in claim 11,

wherein the parameter affecting the granularity of the image is a developing bias voltage applied to a developing apparatus.

Claim 20 (original): An image forming apparatus comprising the LED array exposure device as set forth in claim 11.

Claim 21 (currently amended): A method of controlling an LED array exposure device comprising a plurality of light-emitting elements for exposing a photoconductor, the plurality of light-emitting elements including a light-emitting element for which correction is performed, the method including:

a first step of obtaining an average value by averaging out beam spot areas of the plurality of light-emitting elements factoring a light quantity correction coefficient for correcting for a variation of a light quantity of a light-emitting element into a standard driving current common to the plurality of light-emitting elements;

a second step of obtaining a difference by subtracting a beam spot area of the light-emitting element from the average value of the beam spot areas factoring a beam spot area correction coefficient for correcting for a variation of an area of a beam spot formed on the photoconductor by the light-emitting element into a value obtained in the first step;

a third step of obtaining a ratio of the difference by dividing the difference by the average value of the beam spot areas factoring a correction coefficient in accordance with a magnitude of a parameter that affects a granularity of the image formed on the photoconductor into a resultant value obtained in the second step; and

a fourth step of calculating a beam spot area correction coefficient for the light-emitting element in accordance with the ratio of the difference; driving the light-emitting element by feeding an amount of current equivalent to the value obtained in the third step,

a fifth step of calculating a granularity correction coefficient for reducing granularity in accordance with the magnitude of a parameter that affects granularity in an image;

a sixth step of obtaining a driving current for the light-emitting element by

multiplying the standard driving current by the light quantity correction coefficient, the

beam spot area correction coefficient, and the granularity correction coefficient; and

a seventh step of driving the light-emitting element by feeding the driving current

~~wherein the beam spot area correction coefficient is a value that corresponds to a~~

~~magnitude of a difference between an average value obtained by averaging out beam spot~~

~~areas of the plurality of light-emitting elements including the light-emitting element for~~

~~which a correction is performed and the beam spot area of the light-emitting element for~~

~~which a correction is performed.~~

Claim 22 (original): A method of controlling an LED array exposure device comprising a

plurality of light-emitting elements for exposing a photoconductor, including:

a first step of obtaining a driving current in a low gray level through a process of

multiplying a standard driving current common to the plurality of light-emitting elements

by a) a light quantity correction coefficient for correcting for a variation of a light

quantity of a light-emitting element, b) a beam spot area correction coefficient for

correcting for a variation of an area of a beam spot formed on the photoconductor by the

light-emitting element, and c) a correction coefficient corresponding to a magnitude of a

parameter affecting a granularity of an image when a image pixel corresponding to the

light-emitting element has a low gray level;

a second step of obtaining a driving current in a high gray level through a process

of multiplying the standard driving current common to the plurality of light-emitting

elements by a) the light quantity correction coefficient for correcting for a variation of a

light quantity of the light-emitting element, b) the beam spot area correction coefficient

for correcting for a variation of an area of a beam spot formed on the photoconductor by the light-emitting element, and c) a correction coefficient corresponding to a magnitude of a parameter affecting a granularity of an image when the image pixel corresponding to the light-emitting element has a high gray level; and

a third step of obtaining a driving current by which the light-emitting element is driven by using linear interpolation from the driving current in the low gray level to the driving current in the high gray level in accordance with a gray level of the image pixel to which the light-emitting element corresponds.